

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended) An airborne particle impaction sampler, comprising:

a base;

a microscope slide disposed on said base;

an adhesive media located on said microscope slide to assist in adhering airborne particles on said microscope slide;

a top cap secured to said base, said top cap having an inlet opening formed therethrough, said inlet opening being configured as a slit, the upper surface of the top cap defining the inlet opening including opposed substantially parallel side portions and opposed outwardly radiused arcuate end portions extending between and interconnecting the ends of the side portions; and

~~said inlet opening having an outer venturi section an inner laminar section~~ an inlet passageway extending from the inlet opening, the top cap defining a first portion and a second portion of the inlet passageway,

the first portion of the inlet passageway including opposed planar side walls converging inwardly from a top edge integral with the side portions of the inlet opening to coplanar bottom edges, and outwardly radiused arcuate end walls converging inwardly from a top edge integral with the end portions of the inlet opening to bottom edges coplanar with the bottom edges of the side walls, the end walls extending between and interconnecting the side walls, and

the second portion of the inlet passageway including substantially parallel side walls extending from a top edge integral with the bottom edges of the side walls of the first portion of the inlet passageway to coplanar bottom edges, and opposed outwardly radiused arcuate end walls extending from a top edge integral with the bottom edges of the end walls of the first portion of the inlet passageway to bottom edges coplanar with the bottom edges of the parallel side walls, the opposed end walls of the second portion of the inlet passageway extending between and interconnecting the parallel side walls, and the bottom edges of the side walls and the end walls of the second portion of the inlet passageway defining an outlet opening adjacent the microscope slide such that air entering the sampler impacts said adhesive media.

2-4. (cancelled)

5. (original) The sampler of claim 1, wherein said top cap telescopically fits over said base.

6. (original) The sampler of claim 1, wherein said base has a groove formed in its outer surface and an o-ring disposed in said groove, and wherein the top cap engages the o-ring to prevent air from leaking into said sampler when said top cap is secured to said base.

7. (currently amended) The sampler of claim 1, further comprising [[:]] a vacuum source attached to the sampler for drawing air therein.

8-21. (cancelled)

22. (currently amended) A method of gathering airborne particles into an impaction sampler, the airborne particles gathering method comprising:

providing a housing having an inlet opening formed therethrough, the inlet opening being configured as a slit, the upper surface of the housing defining the inlet opening including opposed substantially parallel side portions and opposed outwardly radiused arcuate end portions extending between and interconnecting the ends of the side portions, and an inlet passageway extending from the inlet opening, the housing defining a first portion and a second portion of the inlet passageway,

the first portion of the inlet passageway including opposed planar side walls converging inwardly from a top edge integral with the side portions of the inlet opening to coplanar bottom edges, and outwardly radiused arcuate end walls converging inwardly from a top edge integral with the end portions of the inlet opening to bottom edges coplanar with the bottom edges of the side walls, the end walls extending between and interconnecting the side walls, and

the second portion of the inlet passageway including substantially parallel side walls extending from a top edge integral with the bottom edges of the side walls of the first portion of the inlet passageway to coplanar bottom edges, and opposed outwardly radiused arcuate end walls extending from a top edge integral with the bottom edges of the end walls of the first portion of the inlet passageway to bottom edges coplanar with the bottom edges of the parallel side walls, the opposed end walls of the second portion of the inlet passageway extending between and interconnecting the parallel side walls, and the bottom edges of the side walls and the end walls of the second portion of the inlet passageway defining an outlet opening;

locating a microscope slide in said housing adjacent the outlet opening, said microscope slide having an adhesive media applied thereon;

drawing air through a ~~small~~ the inlet opening formed in said housing and into a ~~passage~~ located adjacent said ~~microscope slide~~ the inlet passageway;

accelerating said drawn air in first portion of said ~~passage~~ inlet passageway after it has passed through said inlet opening; and

passing said accelerated air from said first portion of said inlet passageway to a said second portion of said inlet passageway, ~~said second portion having a smaller side to side distance than said first portion; said second portion having an opening adjacent said microscope slide that is non-circular in shape~~ such that the drawn air exits the outlet opening and impacts said adhesive media.

23. (original) The method of claim 22, wherein said step of drawing air further comprises connecting a vacuum source to an outlet opening of the sampler.

24-25. (cancelled)

26. (currently amended) The method of claim 22, further comprising ~~[[:]]~~ directing the drawn air through the inlet passageway such that ~~it~~ the drawn air exiting the outlet opening impacts said adhesive media in a substantially perpendicular direction.

27-34. (cancelled)

35. (currently amended) An impaction air sampler, comprising:

a housing having an upper portion and a lower portion;

a ~~retaining mechanism~~ recess formed in said lower portion of said housing ~~for holding a slide placed therein~~;

a slide located within said recess;

an inlet passageway being formed in said upper portion of said housing and opening into the housing adjacent said slide;

said lower portion of said housing having a bore with greater depth than the recess, ~~which is the bore~~ sized to allow air to flow around said slide, the longest planar dimension of the bore at the inner surface of the lower portion of said housing being less than the longest dimension of the slide; and

said housing having an outlet passage in communication with said bore at one end and a remote vacuum source located exterior to said housing at another end.

36-42. (cancelled)

43. (new) The sampler of claim 1, wherein the outlet opening of the inlet passageway is coplanar with the inner surface of the top cap.
44. (new) The sampler of claim 1, wherein the top cap has an integral protuberance extending upwardly from the upper surface of the top cap for defining the inlet passageway.
45. (new) The sampler of claim 44, wherein the outlet opening of the inlet passageway is coplanar with the inner surface of the top cap.
46. (new) The sampler of claim 35, wherein the lower portion of said housing defines opposed slots extending radially outwardly of the bore forming the recess for receiving the slide.
47. (new) The sampler of claim 35, wherein the bore is circular and having a diameter greater than the width of the slide.
48. (new) The sampler of claim 47, wherein the longitudinal axis of the recess bisects the bore.